

Towards a Faster, Fairer and more Popular Transition to Clean Heat in South Yorkshire

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Project partners:
Site Gallery, Sheffield (Exhibition host)



Challenge Statement

This project supported the translation of key learnings from the international JUSTHEAT project to the South Yorkshire context, to enable more rapidly and sensitively delivered transitions to clean heat, rooted in community perspectives.

The project highlights that mainstream discourse on the transition from fossil-fuelled to low-carbon (clean) heating systems tends to focus almost exclusively on the present and future, often assuming little or no historical precedent. In fact, heating transitions are far from novel and have occurred more frequently within living memory than at any other point in human history¹. While the primary goal of the current transition is to reduce greenhouse gas emissions from buildings, it is not the first time heating practices have been

altered for environmental and public health reasons. For example, shifts away from coal toward cleaner burning fuels, such as natural gas, were largely driven by the need to improve air quality². This history provides a rich body of experience that can inform today’s move towards sustainable domestic heating systems—more than is often assumed.

Research Response

JUSTHEAT³ and preceding studies^{4,5} have shown that communities with strong historical ties to fuels now being phased out – such as coal or wood - face particular challenges in adapting to and accepting transitions to clean heat. These fuels often shaped the very development of communities, with dominant industries like mining providing employment, housing, fuel and

Four main themes emerged across South Yorkshire from JUSTHEAT

Heating as bricolage and resilience

“If I stayed up late or something *I’d just flick the gas fire on for ten minutes and it does make a difference.* But like at night, if that isn’t on, cold air, you can feel it, but you know, I feel some nights if the wind’s in that certain direction fair few be cold. So you put that on.”

Place-based identities and coal heritages

“The coal was delivered to an outhouse. There were two brothers who ran the coal business in Whiston, Bennie and Eddie. They would come with 100 weight sacks, one each on the shoulders, and tip it into the outhouse. My parents had to go and get it as and when it was needed in a scuttle or a bucket. *It was pretty hard work.*”

Thermal delight and wellbeing

“You always used to feel secure sitting by a coal fire; you don’t get that so much do you now? *It’s a strange sort of homely feeling you get.* You’d look at the fire and imagine different shapes in the flames as a child.”

Affordability

“The Rayburn stove was quite a big old lump and a lovely thing to look at as well. *Our cat used to love sitting in front of it.*”

I also remember the day it got taken away... being a bit disappointed. It was a lovely old system but then as soon as we got the new system in realising ***how efficient the new system was compared to that.***”

Quotes taken from JUSTHEAT’s oral history interviews in South Yorkshire.

1 Ambrose, A., and Davies, K. (2024), [Was the Past More Sustainable? Keeping Warm](#).

2 Davies, K. (2024), [Breathing Clean Air](#).

3 Ambrose, A., Shaw, B., Palm, J., Pelsmakers, S., Aho, H., Castano Rosa, R., Davies, K., Jigla, G., Kilpelainen, S., Krishna, R., Labont, D., McCarthy, L., Sinea, A., Von Platten, J. and Vornicu, A. (2025). [Looking back to move forwards: a social and cultural history of heating in Europe - A summary of key findings across the UK, Romania, Sweden, Finland](#). Centre for Regional Economic and Social Research, Sheffield Hallam University.

4 Darby, S. J. (2017), [Coal fires, steel houses and the man in the moon: local experiences of energy transition](#). Energy research & social science, 31, 120-127.

5 Rohse, M., Day, R., and Llewellyn, D. (2020). [Towards an emotional energy geography: Attending to emotions and affects in a former coal mining community in South Wales](#), UK. Geoforum, 110:136-146

leisure, and creating lasting loyalties long after their decline. We refer to these communities as “fueliverses”. Such former coalfield and wood reliant communities in Rotherham formed key case studies in JUSTHEAT.

The research found that home heating is shaped by personal memories and attachments, local history and household practice. Four main themes emerged across the South Yorkshire case study:

- **Heating as bricolage and resilience:** households layered heat sources (e.g. gas, electric, heaters, log burners) to maintain flexibility and security during periods of financial or supply uncertainty.
- **Thermal delight and wellbeing:** comfort and homeliness were central to how people used heat, with enduring affection evident for firesides and log burners, even among environmentally committed households.
- **Place-based identities and coal heritages:** in former coalfield communities, coal symbolised pride, work, security and belonging. Here, there was a risk of heating transition fatigue after the transition for gas arrived late for these communities and revealed new vulnerabilities.
- **Affordability:** household decisions were heavily shaped by energy costs, before

consideration could be given to environmental concerns.

Support from the South Yorkshire Sustainability Centre (SYSC) enabled the team to undertake two complementary activities aimed at embedding key learning from JUSTHEAT at the South Yorkshire level. These comprised:

- **A ‘public conversation’** between research participants in the Rotherham area and local decision-makers responsible for shaping the region’s heating future. These facilitated discussions were designed to bridge the gap between households historically left behind by past heating transitions – due to their reliance on coal and in some cases, wood - and officers and elected members from local and regional authorities tasked with rapidly reducing emissions from domestic heating. You can read more about this event and the findings, here: <https://www.shu.ac.uk/centre-regional-economic-social-research/publications/justheat-a-public-conversation>.
- **A one-day interactive conference and exhibition of artworks** produced in response to the project’s findings. The event brought together policymakers, practitioners, academics and consumer advocates to hear about the project and, through a series of activities (listening to presentations, reading

out oral history testimony etc), identify what the findings mean for the work they do in relation to the transition. [The artwork encouraged delegates to reflect on the emotional attachments we form with heating fuels and sources and the profound ways home heating shapes our lives.](#)

Together, these activities strengthened regional engagement with JUSTHEAT and raised awareness among practitioners, policymakers and the public that decarbonising heat is a complex social, cultural, emotional and political challenge - not just a technical or economic one.

What does this mean for the region?

Our research into past heating transitions highlights several lessons for regional and local authorities seeking to deliver an accelerated and just transition to net-zero.

1. Prioritise community ownership to build trust and buy-in:

Heating fuels in the past were tangible, such as wood gathered from common land and coal provided as a salary to coalminers. By contrast, electricity is less tangible and its ownership more fraught. Community energy schemes solve this by allowing the feeling of ownership, as well as providing energy security

and helping to lower the bills, encouraging the appeal of electric heating and EVs.

2. Devolve and tailor approaches to reflect local histories and needs:

Experiences of past heat transitions varied hugely, even between neighbouring villages, and are likely to shape how consumers respond to the next transition. The level of granularity required to design effective programmes means that Westminster must devolve more power to regional authorities. Local Area Energy Plans and Regional Energy Strategic Plans must also resist treating entire authorities as homogenous units—such generalisation risks being counterproductive.

3. Prioritise off-gas-grid homes to support a fair and accelerated transition:

In general, policymakers of the past decade have assumed that off-gas-grid homes will be the most complex and expensive to fit with decarbonised heating. Though the houses themselves may present technical challenges, communities that have not been through heat transitions in the past are more likely to see this one as an improvement. Moreover, this approach is inherently just - as it ensures that those left behind during the last wave of innovation are not left out once again.



Exhibition at Site Gallery, Sheffield, May 2025. All photos Copyright: Becky Shaw.